

Cancer **C**hemotherapy and **P**armacology

Volume 15 1985

Edited by

S.K. CARTER and T. McELWAIN

Editorial Board

M. Acton Menlo Park
P. Alberto Geneva
R. H. Blum New York
M. Boiron Paris
H. Calvert Sutton
R. L. Comis Syracuse
T. Connors Carshalton
R. C. Coombes Sutton
S. Eckhardt Budapest
B. W. Fox Manchester
R. M. Fox Sydney
S. Garattini Milano
M. Ghione Milano

H. H. Hansen Copenhagen
K. Karrer Vienne
D. L. Kisner Bethesda
J. Laszlo Durham
R. B. Livingston Seattle
J. S. Macdonald Bethesda
J. G. McVie Amsterdam
F. M. Muggia New York
M. Ogawa Tokyo
P. Martin Marseille
S. Pavlovsky Buenos Aires
P. Potier Gif-sur-Yvette
P. Reizenstein Stockholm

E. Robinson Haifa
M. Rozencweig Brussels
C. G. Schmidt Essen
H. J. Senn St. Gallen
J. F. Smyth Edinburgh
A. Trouet Brussels
S. Tsukagoshi Tokyo
U. Umezawa Tokyo
F. A. Valeriote Detroit
L. M. van Putten Rijswijk
P. Wilkinson Manchester
G. Wu Huan-Hsin Peking



Springer International

Cancer Chemotherapy and Pharmacology

This journal was founded in 1978. Editors: S. K. Carter, T. McElwain. Published by Springer International.

Copyright

Submission of a manuscript implies: that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review, or thesis); that it is not under consideration for publication elsewhere; that its publication has been approved by all coauthors, if any, as well as by the responsible authorities at the institute where the work has been carried out; that, if and when the manuscript is accepted for publication, the authors agree to automatic transfer of the copyright to the publisher; and that the manuscript will not be published elsewhere in any language without the consent of the copyright holders.

All articles published in this journal are protected by copyright, which covers the exclusive rights to reproduce and distribute the article (e. g., as offprints), as well as all translation rights. No material published in this journal may be reproduced photographically or stored on microfilm, in electronic data bases, video disks, etc., without first obtaining written permission from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if not specifically identified, does not imply that these names are not protected by the relevant laws and regulations.

While the advice and information in this journal is believed to be true and accurate at the date of its going to press, neither the authors, the editors, nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Special regulations for photocopies in the USA: Photocopies may be made for personal or inhouse use beyond the limitations stipulated under Section 107 or 108 of U. S. Copyright Law, provided a fee is paid. This fee is US \$ 0.20 per page, or a minimum of US \$ 1.00 if an article contains fewer than five pages. All fees should be paid to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0340-7004, the volume, and the first and last page numbers of each article copied. The copyright owner's consent does not include copying for general distribution, promotion, new works, or resale. In these cases, specific written permission must first be obtained from the publisher.

Other regulations: Authors publishing in this journal can, under certain conditions, benefit from library and photocopy fees collected by VG WORT. Authors of German nationality and those resident in the Federal Republic of Germany or Berlin (West), as well as citizens of Austria, Switzerland and member countries of the European Community, may apply to Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestraße 49, D-8000 München 2, for detailed information.

Printed in Germany by Ernst Kieser GmbH Graphischer Betrieb, D-8902 Neusäß

© by Springer-Verlag Berlin Heidelberg 1985

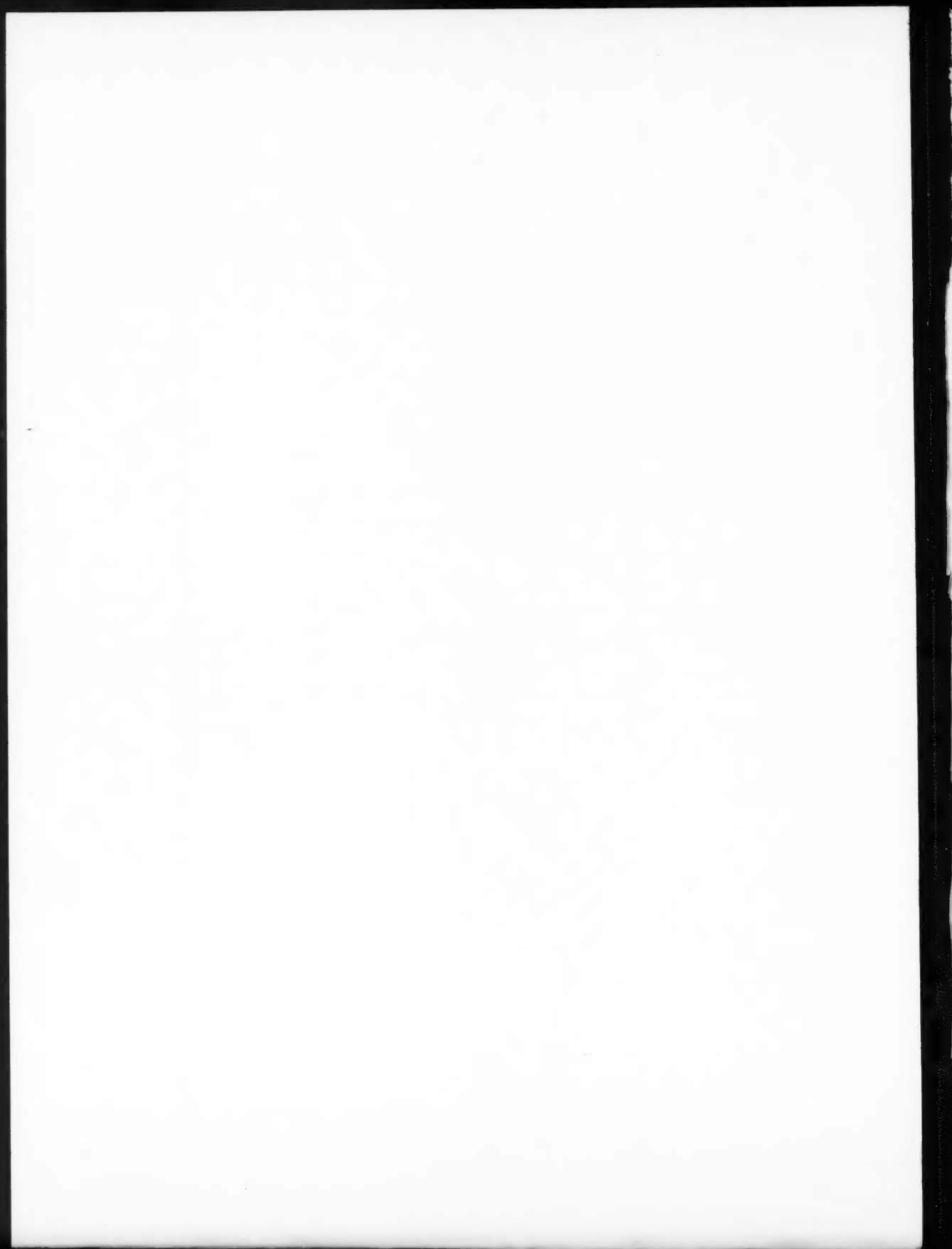
Contents of volume 15

- Adam AM, Bradbrook ID, Rogers HJ: High-performance liquid chromatographic assay for simultaneous estimation of aminoglutethimide and acetylaminoglutethimide in biological fluids 176
- Adenis L, see Hecquet, et al. 310
- Ahmed NK, see Vasanthakumar G 35
- Ahmedzai S, see Cunningham D, et al. 303
- Ames MM, see Miller K, et al. 49
- Antoniw P, see Brindley CJ, et al. 66
- Aoki K, see Iwamoto Y, et al. 228
- Arbuck SG, see Pendyala L, et al. 203
- Ardalan B, Chandrasekaran B, Hrishikeshavan HJ: Biochemical mechanisms for the scheduled synergism of (α S, 5S)-2 amino-3-chloro-4,5-dihydro-5-isoxazoleacetic acid and 5-fluorouracil in P388 leukemia 44
- Armand JP, see Bernadou J, et al. 63
- Ashley S, see Perez DJ, et al. 278
- Baba T, see Iwamoto Y, et al. 228
- Bachur NR, see Dodion P, et al. 153
- Bagshawe KD, see Brindley CJ, et al. 66
- Banham SW, see Cunningham D, et al. 303
- Barbor PRH, see Pinkerton CR, et al. 258
- Barbet J, see Bertault-Pérès P, et al. 76
- Baurain R, see Ninana J, et al. 263
- Beksac M, Peterson C, Reizenstein P: Decreased retention of vinca alkaloids in chronic lymphatic leukemia cells from refractory patients 72
- Bernadou J, Monsarrat B, Roche H, Armand J-P, Paoletti C, Meunier B: Evidence for electrophilic properties of *N*²-methyl-9-hydroxy ellipticinium acetate (Celiptium) from human biliary metabolites 63
- Bertault-Pérès P, Maraminchi D, Carcassonne Y, Cano JP, Barbet J: Clinical pharmacokinetics of ciclosporin A in bone marrow transplantation patients 76
- Bielack S, see Erttmann R, et al. 101
- Bollag W, see Hartmann HR 141
- Bonnerterre J, see Hecquet B, et al. 310
- Booker L, see Browman GP, et al. 105
- Booker L, see Browman GP, et al. 111
- Boulet L, see Dufour M, et al. 125
- Bowman A, see Pinkerton CR, et al. 258
- Bradbrook ID, see Adam AM, et al. 176
- Brasch H, see Iven H, et al. 115
- Brindley CJ, Antoniow P, Newlands ES, Bagshawe KD: Pharmacokinetics and toxicity of the epipodophyllotoxin derivative etoposide (VP 16-213) in patients with gestational choriocarcinoma and malignant teratoma 66
- Browman GP, Booker L, Spiegl P: Differential calcium leucovorin protection of human lymphoid cell lines from methotrexate 105
- Browman GP, Spiegl P, Booker L, Rosowsky A: Comparison of leucovorin protection from variety of antifolates in human lymphoid cell lines 111
- Brunet R, see Bui NB, et al. 82
- Buck M, Kovach JS: Blood and tissue concentrations of Bisan-trene measured by a simple fluorometric assay 40
- Bugat R, see Canal P, et al. 149
- Buck M, see Kovach JS, et al. 192
- Bui NB, Chauvergne J, Hocke C, Durand M, Brunet R, Coindre J-M: Analysis of a series of sixty soft tissue sarcomas in adults treated with a cyclophosphamide-vincristine-adriamycin-dacarbazine (CYVADIC) combination 82
- Burghouts JTM, see Wagener DJTh, et al. 86
- Burnett AK, see Cunningham D, et al. 303
- Cadman E, see Danhauser LL, et al. 214
- Caldwell J, see Gilchrist NL, et al. 290
- Canal P, Bugat R, Michel C, Roche H, Soula G, Combes PF: Pharmacokinetics of teniposide (VM 26) after IV administration in serum and malignant ascites of patients with ovarian carcinoma 149
- Cano JP, see Bertault-Pérès P, et al. 76
- Carcassonne Y, see Bertault-Pérès, et al. 76
- Casper ES, Mittelman A, Kelson D, Young CW: Phase I clinical trial of fludarabine phosphate (F-ara-AMP) 233
- Catino JJ, Francher DM, Edinger KJ, Stringfellow DA: A microtitre cytotoxicity assay useful for the discovery of fermentation-derived antitumor agents 240
- Caty A, see Hecquet B, et al. 310
- Chandrasekaran B, see Ardalan B, et al. 44
- Chauvergne J, see Bui NB, et al. 82
- Clarke S, see Perez DJ, et al. 278
- Cohen BE, see Gutierrez PL, et al. 185
- Cohen PS, Smith SD: In vitro and in vivo chemotherapy screening of the divalent cation chelator 1,10-orthophenanthroline 6
- Coindre JM, see Bui NB, et al. 82
- Combes PF, see Canal P, et al. 149
- Coombes RC, see Waxmann JH, et al. 171
- Coombes RC, see Perez DJ, et al. 278
- Corden et al: Clinical pharmacology of high-dose cisplatin. *Cancer Chemother Pharmacol* 14: 38-41 (Letter to the editor) 183
- Cornu G, see Ninana J, et al. 263
- Creagan ET, see Edmonson JH, et al. 181
- Creaven PJ, see Pendyala L, et al. 203
- Cunningham D, see Gilchrist NL, et al. 290
- Cunningham D, Banham SW, Hutcheon AH, Dorward A, Ahmedzai S, Tansey P, Soukop M, Stevenson RD, Stack BR, Kaye SB, Lucie N, Burnett AK: High-dose cyclophosphamide and VP 16 as late dosage intensification therapy for small cell carcinoma of lung 303
- Dahl O, see Fossá SD, et al. 161
- Dam FE van, see Wagener DJTh, et al. 86
- Danhauser LL, Heimer R, Cadman E: Lack of enhanced cytotoxicity of cultured L1210 cells using folic acid in combination with sequential methotrexate and fluorouracil 214
- Danigel H, Pflüger KH, Junglas H, Schmidt L, Dellbrügge J: Drug monitoring of etoposide (VP16-213). I. A combined method of liquid chromatography and mass spectrometry 121
- Davis TA, see Gutierrez PL, et al. 185
- Dellbrügge J, see Danigel H, et al. 121
- Demaille A, see Hecquet B, et al. 310
- Dodion P, Egorin MJ, Riggs CE Jr, Ferraro TA, Tamburini JM, Bachur NR: Comparative murine metabolism and disposition of class II anthracycline antibiotics 153
- Dohke Y, see Kojima T, et al. 268
- Doorenbos H, see Veelen H van, et al. 167
- Dorman EB, see Morton RP, et al. 283
- Dorward A, see Cunningham D, et al. 303
- Dufour M, Panasci LC, Germain JSt, Boulet L: Effects of amino acids on the transport and cytotoxicity of melphalan by human bone marrow cells and human tumor cells 125
- Durand M, see Bui NB, et al. 82
- Eden OB, see Pinkerton CR, et al. 258
- Edinger KJ, see Catino JJ, et al. 240
- Edmonson JH, Long HJ, Richardson RL, Creagan ET, Green SJ: Phase II study of a combination of mitomycin, doxorubicin and cisplatin in advanced sarcomas 181
- Egorin MJ, see Dodion P, et al. 153
- Egorin MJ, see Gutierrez PL, et al. 185
- Ellis ME, Weiss RB, Kuperminc M: Nephrotoxicity of lomustine. A case report and literature review 174
- Engster H, see Iven H, et al. 115
- Erttmann R, Bielack S, Landbeck G: Kinetics of 7-hydroxy-methotrexate after high-dose methotrexate therapy 101

- Falkson G, see Vorobiof DA, et al. 253
- Ferraro TA, see Dodion P, et al. 153
- Fitch W, see Gilchrist NL, et al. 290
- Florence AT, see Halbert GW, et al. 223
- Ford J, see Panasci L, et al. 164
- Forrest GJ, see Gilchrist NL, et al. 290
- Fossá SD, Dahl O, Hoel R, Heier M, Loeb M: Doxifluridine (5'-dFurd) in patients with advanced colorectal carcinoma. A phase II study 161
- Fournier C, see Hecquet B, et al. 310
- Francher DM, see Catino JJ, et al. 240
- Fridkin M, see Ramu A, et al. 31
- Fütterer G, see Mödder B, et al. 236
- Gagliano M, see Gebbia N, et al. 26
- Gebbia N, Leto G, Gagliano M, Tumminello FM, Rausa L: Lysosomal alterations in heart and liver of mice treated with doxorubicin 26
- Germain JSt, see Dufour M, et al. 125
- Gibb J, see Perez DJ, et al. 278
- Gilchrist NL, Caldwell J, Watson ID, Cunningham D, Forrest GJ, Soukop M, Stewart M, Fitch W: Comparison of serum and cerebrospinal fluid levels of methotrexate in man during high-dose chemotherapy for aggressive non-Hodgkin's lymphoma 290
- Gill PG, see Reece PA, et al. 295
- Gordon C, see Perez DJ, et al. 278
- Green SJ, see Edmonson JH, et al. 181
- Groth S, see Sørensen, JB, et al. 97
- Gutierrez PL, Cohen BE, Sosnovsky G, Davis TA, Egorin MJ: On the search for new anticancer drugs. 14: The plasma pharmacokinetics and tissue distribution of spin-labeled thio-TEPA (SL-O-TT) 185
- Halbert GW, Stuart JFB, Florence AT: A low density lipoprotein - methotrexate covalent complex and its activity against L 1210 cells in vitro 223
- Hansen HH, see Sørensen JB, et al. 97
- Hansen SW, see Sørensen JB, et al. 97
- Harland SJ, see Waxman JH, et al. 171
- Hartmann, HR, Bollag W: The effects of arotinoids on rat mammary carcinogenesis 141
- Hecquet B, Vennin P, Fournier C, Lefebvre JL, Caty A, Bonnetterre J, Adenis L, Demaille A: Platinum concentration in human tumors of head and neck, uterine cervix, and breast following treatment with cisplatin 310
- Heier M, see Fossá SD, et al. 161
- Heimer R, see Danhauser LL, et al. 214
- Herrera L, see Wilking N, et al. 300
- Hersh M, see Weiss GR, et al. 144
- Hillen HFP, see Wagener DJTh, et al. 86
- Hocke C, see Bui NB, et al. 82
- Hoel R, see Fossá SD, et al. 161
- Hoff DD von, see Weiss GR, et al. 144
- Hoogendoorn GJ, see Wagener DJTh, et al. 86
- Hoshino A, see Kojima T, et al. 268
- Hrishikeshavan HJ, see Ardalan B, et al. 44
- Hutcheon AH, see Cunningham D, et al. 303
- Iguchi H, Tone H, Ishikura T, Takeuchi T, Umezawa H: Pharmacokinetics and disposition of 4'-O-tetrahydropyranlyadriamycin in mice by HPLC analysis 132
- Iida H, see Tsuruo T, et al. 16
- Inoue K, Mukaiyama T, Mitsui I, Ogawa M: In vitro evaluation of anticancer drugs in relation to development of drug resistance in the human tumor clonogenic assay 208
- Ishikura T, see Iguchi H, et al. 132
- Ishizawa M, see Iwamoto Y, et al. 228
- Ito Y, see Kojima T, et al. 268
- Iturralde M, see Vorobiof DA, et al. 253
- Iven H, Brasch H, Engster J: Pharmacokinetics of methotrexate and 7-hydroxy-methotrexate in rabbits 115
- Iwamoto Y, Kawano T, Ishizawa M, Aoki K, Kuroiwa T, Baba T: Inactivation of *cis*-diamminedichloroplatinum (II) in blood and protection of its toxicity by sodium thiosulfate in rabbits 228
- Jacobsen SJ, see Page T, et al. 59
- James C, see Pinkerton CR, et al. 258
- Jinks S, see Millar BC, et al. 307
- Jungclas H, see Danigel H, et al. 121
- Kamiya O, see Kojima T, et al. 268
- Kawabata N, see Tsuruo T, et al. 16
- Kawano T, see Iwamoto Y, et al. 228
- Kaye SB, see Cunningham D, et al. 303
- Kelson D, see Casper ES, et al. 233
- Khan AA, see Rao PN, et al. 20
- Kinoshita T, see Kojima T, et al. 268
- Kisner DL, see Weiss GR, et al. 144
- Kitatani Y, see Tsuruo T, et al. 16
- Kojima T, Hoshino A, Ohara K, Kamiya O, Nagata K, Ito Y, Kinoshita T, Sugiura I, Yamada M, Sato H, Nagura E, Dohke Y: The effects of multiple combination chemotherapy with vincristine, cyclophosphamide (Endoxan), methotrexate, 5-fluorouracil, adriamycin and prednisolone (VEMFAH) for advanced breast cancer 268
- Kovach JS, see Buck M, et al. 40
- Kovach JS, Buck M, Tsukamoto T, Odegaard A, Lieber MM: Regional targeting of Bisantrene by directed intravascular precipitation 192
- Kuhn JG, see Weiss GR, et al. 144
- Kuperminc M, see Ellis ME, et al. 174
- Kuroiwa T, see Iwamoto Y, et al. 228
- Landbeck G, see Erttmann R, et al. 101
- Lefebvre JL, see Hecquet B, et al. 310
- Lele SB, see Pendyala L, et al. 203
- Lelieveld P, Middeldorp RJF, van Putten LM: Effectiveness of P-aminobenzoyl-O-phenylenediamine (Goe 1734) against mouse, rat, and human tumour cells 88
- Leto G, see Gebbia N, et al. 26
- Lieber MM, see Kovach JS, et al. 192
- Lilly MB, Omura GA: Clinical pharmacology of oral intermediate-dose methotrexate with or without probenecid 220
- Lister TA, see Waxman JH, et al. 171
- Litterst CL, see Uozumi J, et al. 93
- Loeb M, see Fossá SD, et al. 161
- Long HJ, see Edmonson JH, et al. 181
- Lotzova E, see Rao NP, et al. 20
- Lucie N, see Cunningham D, et al. 303
- Ludden TM, see Weiss GR, et al. 144
- Madajewicz S, see Pendyala L, et al. 203
- Malpas JS, see Waxman JH, et al. 171
- Mangum JH, see Page T, et al. 59
- Maraminchi D, see Bertault-Pères P, et al. 76
- Margolese R, see Panasci L, et al. 164
- McCormick M, see Morton RP, et al. 283
- McGovern MR, see Miller K, et al. 49
- Mead GM, Williams CJ, Whitehouse JM: Cisplatin, adriamycin and cyclophosphamide (PACe) combination chemotherapy in patients with ovarian carcinoma resistant to chlorambucil 179
- Meunier B, see Bernadou J, et al. 63
- Michel C, see Canal P, et al. 149
- Mickey DD: Combined therapeutic effects of an immunomodulator, PSK, and chemotherapy with carboquone on rat bladder carcinoma 54
- Middeldorp RJF, see Lelieveld P, et al. 88
- Millar BC, Siddik ZH, Millar JL, Jinks S: Mesna does not reduce cisplatin induced nephrotoxicity in the rat 307
- Millar JL, see Millar BC, et al. 307
- Miller K, McGovern RM, Ames MM: Effect of a hepatic activation system on the antiproliferative activity of hexamethylmelamine against human tumor cell lines 49

- Mitsui I, see Inoue K, et al. 208
- Mittelman A, see Caspar ES, et al. 233
- Mittelman A, see Wilking N, et al. 300
- Mödder B, Fütterer G: Protective effect of testosterone of 5 β -dihydrotestosterone pretreatment on CFU-E numbers in busulfan-treated rabbits 236
- Monsarrat B, see Bernadou J, et al. 63
- Mølgaard K, see Wassermann K, et al. 244
- Moore JV: Clonogenic response of cells of murine intestinal crypts to 12 cytotoxic drugs 11
- Moore JV: Dose-response curves after in vivo experimental chemotherapy: Influence of route of administration in biological outcomes 91
- Morton RP, Rugman F, Dorman EB, Stoney PJ, Wilson JA, McCormick M, Veevers A, Stell PM: Cisplatin and Bleomycin for advanced or recurrent squamous cell carcinoma of the head and neck: a randomised factorial phase III controlled trial 283
- Muggia FM: Testicular cancer and the legacy of chemotherapy 1
- Mukaiyama T, see Inoue K, et al. 208
- Nagata K, see Kojima T, et al. 268
- Nagumo N, see Tsuruo T, et al. 16
- Nagura E, see Kojima T, et al. 268
- Newlands ES, see Brindley CJ, et al. 66
- Ninane J, Baurain R, de Selys A, Trouet A, Cornu G: High dose melphalan in children with advanced malignant disease. A pharmacokinetic study 263
- Nissen MH, see Sørensen JB, et al. 97
- Nyhan WL, see Page T, et al. 59
- Odegaard A, see Kovach JS, et al. 192
- Ogawa M, see Inoue K, et al. 208
- Ohara K, see Kojima T, et al. 268
- Omura GA, see Lilly MB, et al. 220
- Ordway FS, see Schilsky RL, et al. 272
- Page T, Jacobsen SJ, Smejkal RM, Scheele J, Nyhan WL, Mangum JH, Robins RK: Studies on the mechanism of cytotoxicity of 3-deazaguanosine in human cancer cells 59
- Panasci LC, see Dufour M, et al. 125
- Panasci L, Ford J, Margolese R: A phase II study of sequential methotrexate and fluorouracil in advanced colorectal cancer 164
- Paoletti C, see Bernadou J, et al. 63
- Pendyala L, Madajewicz S, Lele SB, Arbuck SG, Creaven PJ: Evaluation of the nephrotoxicity of iproplatin (CHIP) in comparison to cisplatin by the measurement of urinary enzymes 203
- Perez DJ, Powles TJ, Smith IE, Vincent MD, Ashley S, Gordon C, Gibb J, Clarke S, Coombes RC: The modulating effects of flurbiprofen on adriamycin plus vincristine or vindesine in the treatment of advanced breast cancer 278
- Peterson C, see Beksac M, et al. 72
- Petrelli N, see Wilking N, et al. 300
- Pflüger KH, see Danigel H, et al. 121
- Pinkerton CR, Rogers H, James C, Bowman A, Barbor PRH, Eden OB, Pritchard J: A phase II study of ifosfamide in children with recurrent solid tumours 258
- Pirtle III TE, see Weiss GR, et al. 144
- Ploeg E van der, see Veelen H van, et al. 167
- Powles T, see Waxman JH, et al. 171
- Powles TJ, see Perez DJ, et al. 278
- Pritchard J, see Pinkerton CR, et al. 258
- Putten LM van, see Lelieveld P, et al. 88
- Ramu A, Fridkin M, Steinherz R: Cross resistance to esters of methotrexate in a doxorubicin-resistant subline of P388 murine leukemia 31
- Rao PN, Wang Y-C, Lotzova E, Khan AA, Rao SP, Stephens LC: Antitumor effects of gossypol on murine tumors 20
- Rao SP, see Rao PN, et al. 20
- Rausa L, see Gebbia N, et al. 26
- Reece PA, Stafford I, Russell J, Gill PG: Nonlinear renal clearance of ultrafilterable platinum in patients treated with *cis*-dichlorodiammineplatinum (II) 295
- Reizenstein P, see Beksac M, et al. 72
- Richardson RL, see Edmonson JH, et al. 181
- Riggs Jr CE, see Dodion P, et al. 153
- Robins RK, see Page T, et al. 59
- Roche H, see Bernadou J, et al. 63
- Roche H, see Canal P, et al. 149
- Rogers HJ, see Adam AM, et al. 176
- Rogers H, see Pinkerton CR, et al. 258
- Rørth M, see Sørensen JB, et al. 97
- Rosowsky A, see Browman GB, et al. 111
- Rugman F, see Morton RP, et al. 283
- Russell J, see Reece PS, et al. 295
- Sakurai Y, see Tsuruo T, et al. 16
- Sato H, see Kojima T, et al. 268
- Scheele J, see Page T, et al. 59
- Scheerder H, see Wagener DJTh, et al. 86
- Schilsky RL, Ordway FS: Insulin effects on methotrexate polyglutamate synthesis and enzyme binding in cultured human breast cancer cells 272
- Schmidt L, see Danigel H, et al. 121
- Seidenfeld J: Effects of difluoromethylornithine on proliferation, polyamine content and plating efficiency of cultured human carcinoma cells 196
- Selys A de, see Ninane J, et al. 263
- Siddik ZH, see Millar BC, et al. 307
- Sleijfer DT, see Veelen H van, et al. 167
- Sluiter WJ, see Veelen H van, et al. 167
- Smejkal RM, see Page T, et al. 59
- Smith IE, see Perez DJ, et al. 278
- Smith SD, see Cohen PS, et al. 6
- Sørensen JB, Groth S, Hansen SW, Nissen MH, Rørth M, Hansen HH: Phase I study of the cisplatin analogue 1,1-diamminomethylcyclohexane sulfatoplatinum (TNO-6) (NSC 311056) 97
- Sosnovsky G, see Gutierrez PL, et al. 185
- Soukop M, see Gilchrist NL, et al. 290
- Soukop M, see Cunningham D, et al. 303
- Soula G, see Canal P, et al. 149
- Spiegel P, see Browman GP, et al. 105
- Spiegel P, see Browman GP, et al. 111
- Stack BR, see Cunningham D, et al. 303
- Stafford I, see Reece PA, et al. 295
- Steiness E, see Wassermann K, et al. 244
- Steinherz R, see Ramu A, et al. 31
- Stell PM, see Morton RP, et al. 283
- Stephens LC, see Rao PN, et al. 20
- Stevenson RD, see Cunningham D, et al. 303
- Stewart M, see Gilchrist NL, et al. 290
- Stoney PJ, see Morton RP, et al. 283
- Stringfellow DA, see Catino JJ, et al. 240
- Stuart JFB, see Halbert GW, et al. 223
- Sugiura, I, see Kojima T, et al. 268
- Takeuchi T, see Iguchi H, et al. 132
- Tamburini JM, see Dodion P, et al. 153
- Tansey P, see Cunningham D, et al. 303
- Tone H, see Iguchi H, et al. 132
- Trouet A, see Ninane J, et al. 263
- Tsukagoshi S, see Tsuruo T, et al. 16
- Tsakamoto T, see Kovach JS, et al. 192
- Tsuruo T, Kawabata H, Nagumo N, Iida H, Kitatani Y, Tsukagoshi S, Sakurai Y: Potentiation of antitumor agents by calcium channel blockers with special reference to cross-resistance patterns 16
- Tumminello FM, see Gebbia N, et al. 26

- Umezawa H, see Iguchi H, et al. 132
- Uozumi J, Litterst CL: The effect of cisplatin on renal ATPase activity and in vitro 93
- Vasanthakumar G, Ahmed NK: Uptake and metabolism of daunorubicin by human myelocytic cells 35
- van Veelen H, Willemse PHB, Sleijfer DT, vander Ploeg E, Sluiter WJ, Doorenbos H: Mechanism of adrenal suppression by high-dose medroxyprogesterone acetate in breast cancer patients 167
- Veevers A, see Morton RP, et al. 283
- van der Vegt SGL, see Wagener DJTh, et al. 86
- Vennin P, see Hecquet B, et al. 310
- Vincent MD, see Perez DJ, et al. 278
- Vorobiof DA, Iturralde M, Falkson G: Assessment of ventricular function by radionuclide angiography in patients receiving 4'-epidoxorubicin and mitoxantrone 253
- Wagener DJTh, Yap SH, Wobbes T, Burghouts JTM, van Dam FE, Hillen HFP, Hoogendoorn GJ, Scheerder H, van der Vegt SGL: Phase II trial of 5-fluorouracil, adriamycin and cisplatin (FAP) in advanced gastric cancer 86
- Wang YC, see Rao PN, et al. 20
- Wassermann K, Mølgaard K, Steiness E: Similar changes in cardiac morphology and DNA synthesis induced by doxorubicin and 4'-epi-doxorubicin 244
- Watson ID, see Gilchrist NL, et al. 290
- Waxman JH, Harland SJ, Coombes RC, Wrigley PFM, Malpas JS, Powles T, Lister TA: The treatment of postmenopausal women with advanced breast cancer with buserelin 171
- Weiss GR, Hersh M, Kuhn JG, Ludden TM, von Hoff DD, Kisner DL, Pirtle III TE: A phase I and pharmacokinetic comparison of hepatic arterial and peripheral vein infusions of bisantrene for liver cancer 144
- Weiss RB, see Ellis ME, et al. 174
- Whitehouse JM, see Mead GM, et al. 179
- Wilking N, Petrelli N, Herrera L, Mittelman A: Phase II study of combination bleomycin, vincristine and high-dose methotrexate (BOM) with leucovorin rescue in advanced squamous cell carcinoma of the anal canal 300
- Willemse PHB, see van Veelen H, et al. 167
- Williams CJ, see Mead GM, et al. 179
- Wilson JA, see Morton RP, et al. 283
- Wobbes T, see Wagener DJTh, et al. 86
- Wrigley PFM, see Waxman JH, et al. 171
- Yamada M, see Kojima T, et al. 268
- Yap SH, see Wagener DJTh, et al. 86
- Young CW, see Casper ES, et al. 233



Subject Index - Volume 15

- ACTH(Synacthen) stimulation 167
- Adriamycin (ADM) 132, 278
- Amino acid 125
- (aS,5S)-2 Amino-3-chloro-4,5-dihydro-5-isoxazoleacetic acid 44
- Aminoglutethimide 176
- Anthracyclines 153
- Antifolates 111
- Antitumor activity 54
 - drugs 16
 - effects 20
- Arotinoids 141

- Biliary metabolites 63
- Bisantrene 40, 192
 - pharmacokinetics 144
- Bleomycin 283
- Blood urea 307
- Bone marrow cells 125
- Breast cancer 167, 171, 268
- Buserilin 171
- Busulfan 236

- Calcium antagonists 16
- Carboquone 54
- Carcinogenesis 141
- Cardiotoxicity 253
- Cell proliferation 196
- Cerebrospinal fluid levels 290
- Chemotherapy 1, 6, 91, 283, 290
- Children 258, 263
- Cis-dichlorodiammine-platinum(II) 228, 295
- Cisplatin 93, 183, 283, 307, 310
 - analogue 97
- Colorectal cancer 161, 164
- Combination
 - CYVADIC 82
 - FAP 86
 - chemotherapy 179, 181, 268
 - therapy 300
- Comparative study 132
- Cyclosporin A 76
- Cytotoxic drugs 11
- Cytotoxicity 125
- CYVADIC combination 82

- Daunorubicin 35
- Dezaguanosine 59
- Difluoromethylornithine 196
- Disposition in vivo 132
- DNA synthesis 244
- Doxifluridine 161
- Doxorubicin 26, 31, 244
- Drug resistance 31, 208

- Ellipticine 63
- 4'-Epidoxorubicin 253
- Etoposide 66, 121

- FAP combination 86
- Fermentation screening 240
- Fludarabine 233
- Fluorometric assay 40
- Fluorouracil 164, 214
- 5-Fluorouracil 44
- Flurbiprofen 278

- Gastric cancer 86
- Goe 1734 88
- Gestational chorio-carcinoma 66
- Gossypol 20

- Head and neck cancer 283
- Hepatic arterial infusion 144
- Hexamethylmelamine 49
- High-dose MTX therapy 101
- HPLC analysis 132
- Human
 - cancer cells 59
 - cell lines 49
 - tumors 310
 - tumor clonogenic assay 208
- 7-Hydroxy-methotrexate 101

- Ifosfamide 258
- Inactivation 228
- Insulin 272
- Intestinal clonogenic cells 11
- In vitro antitumor activity 208
- Iproplatin 203

- Kinetics in man 101

- L1210 cells 223
- Leucovorin 105, 111, 214
- Leukemic cells 72
- Liquid chromatography 121
- Lomustine 174
- Lung cancer 303

- Malignant ascites 149
 - teratoma 66
- Mass spectrometry 121
- Medroxyprogesterone acetate 167
- Melphalan 125, 263
- Mesna 307
- Metabolism 35, 153
- Methotrexate 31, 105, 115, 164, 214, 220, 223, 290
 - analogs 31
 - metabolism 272
- Metyrapone stimulation 167
- Microtiter cytotoxicity 240
- Mitoxantrone 253
- MPA 167
- Murine tumors 20
- Myelocytic cells 35

- Nephrotoxicity 174, 203, 307
- New drug 88
- Non-Hodgkin's lymphoma 290

- 1,10-Orthophenanthroline 6
- Ovarian carcinoma 149, 179

- Pharmacokinetics 66, 76, 115, 132, 149, 183, 185, 263
- Phase I study 97
- P388 leukemia 44
- P388 murine leukemia 31

VIII

Polyamines	196	
Postmenopausal women		167
Protection	236	
PSK	54	
Renal ATPase	93	
Sarcoma	181	
Sodium thiosulfate		228
Soft tissue sarcomas		82
Solid tumors	258	
Squamous carcinoma		283, 300

Teniposide	149	
Testicular cancer		1
Testosterone	236	
4'-O Tetrahydropyranyl-		
adriamycin (THP)		132
thio-TEPA	185	
TNO-6	97	
Vinca alkaloids		72
Vincristine	278	
Vindesine	278	
VP16	303	

